

WHAT IS CLAIMED AS NEW AND DESIRED TO BE SECURED BY LETTERS
PATENT OF THE UNITED STATES IS:

1. A system for creating and editing structured parts list information, comprising:

a structured parts list information storage configured to store structured parts list information on components including a plurality of kinds of parts;

a parts information storage configured to store parts information on a plurality of parts;

a parts information list creating and editing device configured to retrieve parts information on respective parts, stored in said structured parts list information storage, and to create a parts information list; and

a structured parts information list creating and editing device configured to create updated structured parts list information based on said parts information list created by said parts information list creating and editing device.

2. The system according to claim 1, wherein:

said parts information on respective parts include information on, at least, an identification, a function, a manufacture, a feature of at least one of size and shape, a future prospect, a price, and approval data related to approval and non-approval for use.

3. The system according to claim 1, further comprising:

a compatibility prediction information output device configured to survey on predetermined items based on said parts information list created by said parts information list creating and editing device, and to create and then output decision information for compatibility prediction based on results from said survey.

4. The system according to claim 3,

wherein:

said predetermined items on respective parts include at least packaging density, arrangement, and operation verification.

5. The system according to claim 1, further comprising:

a compatibility prediction information output device configured to store predetermined information on simulation models, based on technical requirements, to carry out simulation steps using parameters corresponding to models selected from said simulation models, and to create prediction information based on simulation results.

6. The system according to claim 1, further comprising:

a compatibility prediction information output device configured to estimate packaging densities for an arrangement with all components mounted within a desired layout area based on said updated parts information list in said structured parts information list, and to create and then output decision information for compatibility prediction based on packaging density results.

7. The system according to claim 1, further comprising:

a compatibility prediction information output device configured to estimate packaging densities for an arrangement with all components mounted within a desired layout area based on said updated parts information list in said structured parts information list together with predetermined restrictions, and to create and then output decision information for compatibility prediction based on packaging density results.

8. The system according to claim 7,

wherein:

said predetermined restrictions include at least restrictions concerning layout blocked area, part height, connector position, part location, pattern routing, and equi-trace-length requirements.

9. A method for creating and editing structured parts list information, comprising the steps of:

storing structured parts list information on components including a plurality of kinds of parts;

storing parts information on components including a plurality of parts;

retrieving parts information on respective parts stored in said structured parts list information;

creating a parts information list of said respective parts; and

creating and editing updated structured parts list information

based on said parts information list.

10. The method according to claim 9,

wherein:

said parts information on respective parts include information on, at least, an identification, a function, a manufacture, a feature of at least one of size and shape, a future prospect, a price, and approval data related to approval and non-approval for use.

11. The method according to claim 9, further comprising the steps of:

surveying on predetermined items based on said updated parts information list; and

creating and then outputting decision information for compatibility prediction based on results from said survey.

12. The method according to claim 9, further comprising the steps of:

storing predetermined information on simulation models, based on technical requirements;

carrying out simulation steps using parameters corresponding to models selected from said simulation models; and

creating prediction information based on simulation results.

13. The method according to claim 9, further comprising the

steps of:

estimating packaging densities for an arrangement with all components mounted within a desired layout area based on said updated parts information list in said structured parts list information; and

creating and then outputting decision information for compatibility prediction based on packaging density results.

14. The method according to claim 9, further comprising the steps of:
estimating packaging densities for an arrangement with all components mounted within a desired layout area based on said updated parts information list in said structured parts list information together with predetermined restrictions; and

producing and then outputting decision information for compatibility prediction based on packaging density results.

15. The method according to claim 14,
wherein:
said predetermined restrictions include at least restrictions concerning layout blocked area, part height, connector position, part location, pattern routing, and equal-trace-length requirements.

16. A computer accessible storage medium configured to store structured parts list creating and editing programs for a computer to execute a plurality of processing steps, said processing

steps comprising the steps of:

storing structured parts list information on components including a plurality of kinds of parts;

storing parts information on components including a plurality of parts;

retrieving parts information on respective parts, in said structured parts list information;

creating a parts information list of said respective parts; and

creating and editing updated structured parts list information based on said parts information list.

17. The computer accessible storage medium according to claim 16, wherein:

said parts information on respective parts include information on, at least, an identification, a function, a manufacture, a feature of at least one of size and shape, a future prospect, a price, and approval data related to approval and non-approval for use.

18. The computer accessible storage medium according to claim 16, said processing steps further comprising the steps of:

surveying on predetermined items based on said updated parts information list; and

creating and then outputting decision information for compatibility prediction based on results from said survey.

19. The computer accessible storage medium according to claim 16, said processing steps further comprising the steps of:

storing predetermined information on simulation models, based on technical requirements;

carrying out simulation steps using parameters corresponding to models selected from said simulation models; and

generating prediction information based on simulation results.

20. The computer accessible storage medium according to claim 16, said processing steps further comprising the steps of:

estimating packaging densities for an arrangement with all components mounted within a desired layout area based on said updated parts information list in said structured parts list information; and

producing and then outputting decision information for compatibility prediction based on packaging density results.

21. The computer accessible storage medium according to claim 16, said processing steps further comprising the steps of:

estimating packaging densities for an arrangement with all components mounted within a desired layout area based on said updated parts information list in said structured parts list information together with predetermined restrictions; and

producing and then outputting decision information for compatibility prediction based on packaging density results.

22. The computer accessible storage medium according to claim 21, wherein:

said predetermined restrictions include at least restrictions concerning layout blocked area, part height, connector position, part location, pattern routing, and equal-trace-length requirements.

23. A system for creating and editing structured parts list information, comprising:

structured parts list information storage means for storing structured parts list information on components including a plurality of kinds of parts;

parts information storage means for storing parts information on components including a plurality of kinds of parts;

parts information list creating and editing means for retrieving parts information on respective parts, stored in said structured parts list information storage means, and for creating a parts information list; and

structured parts information list creating and editing means for creating updated structured parts list information based on said parts information list created by said parts information list creating and editing means.

24. The system according to claim 23, further comprising:

compatibility prediction information output means for surveying on predetermined items based on said parts information list created by said parts information list creating and editing means, and for creating and then outputting decision information for compatibility prediction based on results from said survey.

25. The system according to claim 23, further comprising:

compatibility prediction information output means for storing predetermined information on simulation models, based on technical requirements, for carrying out simulation steps using parameters corresponding to models selected from said simulation models, and for creating prediction information based on simulation results.

26. The system according to claim 23, further comprising:

compatibility prediction information output means for estimating packaging densities for an arrangement with all components mounted within a desired layout area based on said updated parts information list in said structured parts information list, and for creating and then outputting decision information for compatibility prediction based on packaging density results.

27. The system according to claim 23, further comprising:

compatibility prediction information output means for estimating

packaging densities for an arrangement with all components mounted within a desired layout area based on said updated parts information list in said structured parts information list together with predetermined restrictions, and for creating and then outputting decision information for compatibility prediction based on packaging density results.

28. A computer accessible storage medium configured to store structured parts list creating and editing programs for a computer to execute a plurality of processing steps, said processing steps comprising the steps of;

storing structured parts list information on components including a plurality of kinds of parts;

retrieving parts information on respective parts, in said structured parts list information;

creating a parts information list of said respective parts; and

creating and editing updated structured parts list information based on said parts information list.

29. The computer accessible storage medium according to claim 28, said processing steps further comprising the steps of:

surveying on predetermined items based on said updated parts information list; and

creating and then outputting decision information for

compatibility prediction based on results from said survey.

30. The computer accessible storage medium according to claim 28, said processing steps further comprising the steps of:

storing predetermined information on simulation models, based on technical requirements;

carrying out simulation steps using parameters corresponding to models selected from said simulation models; and

generating prediction information based on simulation results.

31. The computer accessible storage medium according to claim 28, said processing steps further comprising the steps of:

estimating packaging densities for an arrangement with all components mounted within a desired layout area based on said updated parts information list in said structured parts list information; and

producing and then outputting decision information for compatibility prediction based on packaging density results.

32. The computer accessible storage medium according to claim 28, said processing steps further comprising the steps of:

estimating packaging densities for an arrangement with all components mounted within a desired layout area based on said updated parts information list in said structured parts list information together with predetermined restrictions; and

producing and then outputting decision information for compatibility prediction based on packaging density results.

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